

AVIATION

The Oldest American Aeronautical Magazine

FEBRUARY 18, 1924

Issued Weekly

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The aerial life buoy in action: Parachute descent from a Marine Corps plane over San Diego

VOLUME
XVI

SPECIAL FEATURES

NUMBER
7

DR. SAMUEL JOHNSON ON FLYING
APPLYING THE LAW OF FREE MOVEMENT
THE 1924 SWALLOW COMMERCIAL AIRPLANE
DANGERS OF HIGH SPEED AND ACROBATIC FLYING

THE GARDNER, MOFFAT CO., Inc.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK

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Training Throughout the Year.



FEBRUARY 18, 1924

AVIATION

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VINCENT E. CLARK
EDWARD F. WARDEN
RALPH H. UPHAM CONTRIBUTING EDITOR

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Too Many Organizations

THAT too many parallel aeronautical organizations exist in this country has been well known for some time. In New York there has been the Aero Club, the Flying Club, the International Society and a Chapter of the S. A. A. Nevertheless—activity has been practically at a standstill for several years.

Other cities have had similar parallel organizations. As an indication of the duplication of efforts where concentration should be the watchword the situation in Chicago may be cited. Here there is the power Aero Club of Illinois, with an flying field and record of numerous activities in aeronautics; the Air Board of Chicago, consisting of representatives of the various clubs and organizations having their own aviation centers, which was very active for a time; the Young Men's Club of Chicago, which has been kept alive by a few aeronautical enthusiasts, and lastly, the local chapter of the S. A. A., which comprises a large group of aeronautical people. So many organizations in one city arouse confused impressions not only in the public but also among those who are trying to keep a proper record of all aviation work in the United States.

In several cities there has been a feeling that the S. A. A. should confine its activities to national matters, while the local clubs should be left free to deal with local matters. That there is a real danger here of overlapping, with duplication and inefficiency in its wake, is only too apparent.

Much praise has been given to Dayton for securing 1900 members for its local chapter. This considerable record has in its very success an element of danger. As each State is allowed representation at the Annual Convention of the S. A. A. for each twenty-five members, the preponderance of delegates from Ohio will be evident. To say that other cities should show the same initiative in overhauling the disorganized Dayton chapter. The issue of the Wright brothers, the center of the Engineering activities of the Air Service, at McCook Field with over a thousand employees, the place where probably as much money was spent for building airplanes during the war as in any other city, with the resulting profits and large number of people employed—all these give Dayton an advantage that has to be taken into account. Now, with the activities of the S. A. A. largely transferred there, the moving international air issue and the possibility of the Government spending \$5,000,000 to build a new McCook Field, the membership in the local chapter is the natural reflection.

All the above is written for the purpose of inducing the country of having a clearer understanding of local problems relating to aviation. We will be glad to hear from our readers on this all important subject of the development of local air organizations. The S. A. A. idea may be the best, but a discussion of the whole subject at this time will be helpful too.

The International Air Convention

TWO more countries—Bulgaria and Czechoslovakia—have accepted the International Convention relating to Air Navigation on the world's fundamental rule of the air. Their action brings the number of countries in which the International Convention is in force up to thirteen, as follows: Belgium, Bulgaria, the British Empire, Bulgaria, Czechoslovakia, France, Greece, Italy, Japan, Persia, Portugal, the South-Croat-Slovene Kingdom and Spain. In point of population and surface area these countries, with their dependencies and colonies, cover by far the greater part of the world. A glance at the map will show that no matter how slowly it comes from England to France without having to face any but uniform regulations covering all phases of air navigation. What this happy state of affairs seems to pilots of aircraft, will be obvious to those who are familiar with the lasting benefits the world derives from the international conventions relating to maritime navigation and trade.

It therefore seems necessary to call once more the attention of the State Department to the urgent need of ratifying the International Air Convention which the representatives of the United States signed with certain reservations in May, 1920. Nearly four years have elapsed since then and neither the Government nor Congress has, as far as we are aware of it, taken the slightest interest in making the United States a party to the Convention. It is high time that this neglect be remedied so that our country may enter the circle of nations which are cooperating in the development of international air relations.

Air navigation is, by reason of the speed and versatility of aircraft, an enterprise of constantly increasing scope. Its success is very largely dependent on a uniform set of laws governing the operation of aircraft. That is what the Convention was drafted for, and several years' European experience overwhelmingly proves that this agreement is based on sound lines. The Convention has had its "nothing troubles" such as every new instrument of cooperation or agreement, but these have largely been overcome by various amendments to the original draft.

It was reported last spring that the Pan-American Conference held in Santiago, Chile, had appointed an Inter-American Commercial Aviation Committee for the purpose of drafting an air convention which would be submitted for ratification to all the members of the Pan-American Union. If the proposed convention purports to duplicate the International Convention we cannot see the slightest practical use for it. On the contrary, we fear that eventually, when trans-Atlantic air transport will have become an accomplished fact, the co-existence of two "international" air conventions will lead to a lot of unnecessary friction and difficulties.

AIRPORTS AND AIRWAYS

New Florida Air Route

Inaugurating this month of regular airplane passenger and express service between Tampa and Sarasota, is St. Petersburg, and early extension of operations to Miami is announced by officials of the Tennessee Air Line Co.

Representatives of the company have been in Tampa for several months preparing for the operation of the line, and during the last thirty days or more a large force of mechanics has been busy assembling the planes and making ready for the start of the service. E. H. Thacker, general manager, is at Sarasota to complete arrangements there for the landing field.

The company now has three planes ready for service, all of which have already been flown—at Tampa, which made a flight to Bradenton, one at St. Petersburg, which made a flight to Sarasota, and one at Miami.

The work of the Tennessee Air Line has a 40-acre landing field at St. Petersburg, a 50-acre landing field about completed at Tampa, a contract for 50 acres at Oklawaha, and is now negotiating for a 45-acre landing field at Miami. It expects to expand eventually to operate a daily schedule to Orlando, Daytona and Jacksonville, but starting in two days its daily schedule will only be as far as Sarasota, and will continue to add the company landing fields between that point and Miami until all have been made ready.

It also has a communication taking a business man from Tampa or St. Petersburg to Miami, getting him time to transit his business and get him back home in time for dinner. The night way rate will be \$24, but the company hopes to be able when open it is commercially established to cut this price considerably.

The scheduled out of operating a daily schedule between St. Petersburg, Tampa, Oklawaha and Miami, during the summer, regular maintenance of ships, etc., approximately \$100 a day.

The financing of the company has been almost entirely by Tampa and St. Petersburg men who are anxious to see a short line service from coast to coast.

Chicago News

By Ole Kles

Harold P. Pratt, Superintendent of the Chicago Air Mail field, has acquired an Aero five on personal use. Edward H. Hubbert of LaSalle, Ill., has purchased a Cessna from One Aircraft. After leaving to fly his own ship he will take it to his home town where he also expects to erect a hangar. Elmer Partridge is building a set of Fold-Collins built his engine for use with a Jensen engine. It will be interesting to note how this wing compares with the well known Berry high lift wing for Aerobacs or the Fold-Collins wing, which is considered by local men the most efficient ever designed.

Samuel Clark has completed the overhaul of his Laird and is to try the ship in anticipation of a flight over from Chicago's field.

One of the Western Division Air Mail pilots made use of his bid to pay a hot airport visit in the Chicago Aero Show He flew in from Omaha Saturday, Feb. 2.

Aircraft Materials and Flying Equipment

The opening of the PGM flying season has Air Transport Equipment, Inc. of Long Island City, N. Y., with a full line of materials and parts for the construction and operation of airplanes. The equipment on hand comprises a great variety of parts of engines, all kinds of engines and parts thereof, fuel, fueling, flying coats, helmets, etc.

A. A. Jones, president of the company, is also general agent for the General 16 hp. vertical four cylinder engine for light planes which was described some time ago in these columns.

Italian Aero Engine Progress

The development given by the Italian air department in the construction of modern type of aero engines will shortly bring forth several new types.

A 12-cylinder Vee engine of 450/550 hp., is being completed by the Fiat Co. It is to compete in tests very shortly with its competitors in the French aero-engine competition. This firm is also building a 12-cylinder Vee engine of 253 hp. and one of 300 hp. It is building a new 200 hp. radial engine at the same rapid developing rate.

The Isotta Fraschini Co. has completed an engine of 140 hp. known as type VA, which has already outperformed its first trials successfully, and a 32-cylinder Vee engine of 560 hp. is nearing completion.

The Colombo Co. has successfully tested a light-powered engine of 20 hp. and has also under construction a 12-cylinder Vee of 450 hp. which will be ready in March.

The Piaggio Co., one of the oldest manufacturing firms in Italy, which recently took up the construction of aircraft and aero engines, is completing an engine of 15 hp. which is to be fitted into the dual-control light plane of present Italian construction. In addition to light planes the firm is also building a pursuit plane of 180 hp. and large four-engine biplane of 2400 hp. designed by Giuseppe Bazzani who was previously with the Pratt & Whitney Co. and the Constantine Nordi-American Co.

Swedish Aeroplane Mfg. Co.

The Swedish Aeroplane Manufacturing Co. of Warhol, Kna, has succeeded in the E. H. Laird Co. of the same line in the construction of the well known Swallow three-center commercial plane. Mr. Laird's interest was purchased last October by J. M. McMillen, who incorporated the Warhol Laird Aeroplane Co. under the name of Knaas Co. Jan. 9, at a stockholders' meeting, the name of the firm was changed to Swedish Aeroplane Mfg. Co.

The officers of the new firm are as follows: J. M. McMillen, president, Walter J. Black, vice president and general manager, Russell Myers, secretary and treasurer. Lead Stone was in chief engineer and William Brock superintendent.

During a trip South just completed, Mr. Black and five members of the 1934 model. This ship is described elsewhere in this issue.

Hamilton Propellers

The Hamilton Aero Manufacturing Co., of Milwaukee, Wis., propeller manufacturers since 1909, have recently issued an interesting company folder describing and describing their manufacturing processes and numerous factory, aerial, land, and water planes and other machines which are equipped with Hamilton propellers. These illustrations include the battle 304 of trans-Atlantic fame and the new Navy biplane Stearman.

It is stated in the folder that the Hamilton equipment includes propellers for every type of plane and motor from the 1200 hp. airplane to the 10 hp. sport plane.

Hammondport News

The Navy Department has awarded Airships Inc. of Hammondport, N. Y. a contract to build replacement gondolas for the naval dirigible Hammonds. These gondolas are now under construction at the plant.

An engineer in charge of this company has received the aviator of Norman Macmillan, who has had a great deal of experience with this work both here and abroad. During the time Mr. Macmillan was in charge of the dirigible for the British government.

Airships Inc. are not only taking to their personnel, but also outperform a considerable expansion of their plant.

A Long Cross Country Trip

Flying the new Model Four "Patrol" George B. Post of Hill Island, C. U., is making a complete tour of the Southwestern portion of the Country, following an itinerary that has already extended some thirteen States and will total a total of over 5,000 air miles before its completion at the factory in Oshkosh, N. Y.

The Patrol Model 4 is a modification of the original three and of the same type. The Model 4 is equipped with Wright R-17 Hispano Model 4 engine instead of the OX5, and has a



George B. Post, pilot of the Patrol 4 in which he is making a 5,000 air kilometer trip

and lavatory with a side by side passenger cockpit, beside reducing many other interesting developments over the original model.

The Patrol 4 was first flown on Sept. 27, 1933 and by the following afternoon was making its way to St. Louis, which was reached on 915 flying hours from Oshkosh, N. Y.—an average of just under 160 mi. per hr. For the 900 mi. trip following the landing of land winds and rain that prevailed at the time. Over 450 lb. of pay load in the form of passengers and baggage was carried on the trip West.

From St. Louis the Patrol was flown to Berlin, Ohio, where extensive tests were carried on by the Engineering Bureau of the Air Service for the purpose of obtaining advance data on the TWS training plane. The latter is a counterpart of the Patrol except for the cockpit arrangement, and is now in production on a service order of Army training planes for use in French field army group.

Performance was held secondary to the general characteristics of controllability, balance and stability during the tests made, but the very creditable figures of 115 mi. per hr. and a climb to 16,000 ft. in 23 min. were obtained on the first flight, while carrying a useful load in each case of 550 lb., made up of passengers, fuel and oil for four hours and miscellaneous equipment.

From Berlin the Patrol was flown to the naval air station at Pensacola, Fla., by way of the National Guard field at Lexington, Ky. and Louisville, Tenn., and Maxwell field at Montgomery, Ala. Favorable winds for the first time allowed

a slow, cruising speed on the leg of the journey, and it was flown by repeated checks that less than 10 gal. per hour was burned by the old model Hispano, while maintaining an average speed of 50 mi. per hr., giving a cruising range of well over four hours with a reserve of better than 300 mi. in 2200 gal. of fueling tanks.

These two weeks were spent at Pensacola in order to show the French the Navy the results of the tests made. The 2 training plane which were being conducted at that time. From Pensacola the itinerary includes a stop at Orlando Field, San Antonio, Tex., and then a return along the Atlantic coast, based with stops at Hampton Roads, Washington and New York.

Mr. Post's trip was arranged purely from an educational standpoint upon the airplane industry of the time, in accordance with the company's policy of doing away with barriers under the actual conditions which they were designed to meet.

The Airplane in the Japanese Disaster

An issue of the Japanese publication *Myoko* during the time of the Japanese earthquake drills on the Japanese flights made by Japanese army airplanes after the outbreak of the earthquake.

Up to the night of the first the conditions in Tokyo and Yokohama were utterly unknown; in Osaka, the only place of information being a wireless telegram saying that less occurred subsequently in the earthquake. By order of the Minister of War, the 1216, piloted by Lieutenant Hidenaka, with a passenger, started on the second at 9 a. m. without weather observation, the pilot and his crew being determined to run the risk of life. Arriving at Osaka at 10 a. m., he charged the important arrival to the 4th Division. On this account, the condition on the Tokyo front with regard to the earthquake was made known to the eastern part of the country, and telegrams were sent from Osaka to various parts of the world. The body of the plane became disintegrated black with smoke. The trip there and back took 544 hr. On the second between 6 p. m. and 6:30 p. m., the Ministry of War gave orders for these airplane flights—two to the 10th Infantry Regiment at Takasaki, the second to the Chutsumu division, and the last to the 57th Infantry regiment at Sukuma. They all reached their destinations in the dark and their crews were exhausted. It was said to be these "life or death" flights that the troops were able to assemble in and about Tokyo so rapidly. Besides, there were numerous times when airplanes did reconnaissance services in the Japanese disaster. Some of the airplanes were reconnaissance and propaganda flights made between Tokyo, Yokohama, and Nagoya, Kyoto concerning Osaka and Tokyo, and a reconnaissance made of the seven islands of Izu.

At the time of the configuration, the plane while flying over Tokyo was shown up by the strong currents of air caused by the disaster and the air resistance to the plane was so great that flying was very dangerous. The flying time up to the north was 393 hr. as regards only the flight school, the 2nd, 4th and 5th flight battalions over 253 hr. The total flying time will be considerably increased by the activities of the Shinjuku branch of the flight school in the Chiba district and the 1st and 3rd flight battalions in the Osaka region are included.

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HIGH POWER

The Wright T-3 Aeronautical Engine has the highest guaranteed horse power of any engine now in series production throughout the world.

In excess of this guaranteed power there is a comfortable margin still in reserve that is always immediately available.

This organization in bringing the model T engines up to their remarkable performance have been careful to take other stresses and strains induced by high power into consideration when completing design.

Thus are careful judgments in correct aeronautical engineering practice a part of the heritage of the Wright Aeronautical Corporation.

WRIGHT AERONAUTICAL CORPORATION
Paterson, New Jersey, U. S. A.



"The
Identification of
Incomparable
Service"



The Wright heavy duty T engine installed in a U. S. Navy torpedo plane increased the power by about 150 H.P. This increased the service ceiling almost 90%, the rate of climb and take off 30% and the high speed over 10 miles per hour. The flight radius remained practically the same but the flying characteristics were greatly improved due to the reserve power.

RATINGS

T-2

525 H. P. heavy duty

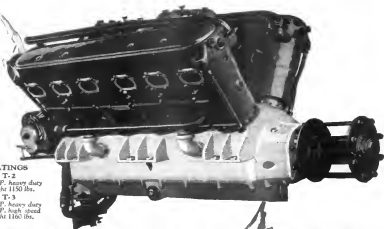
Weight 1150 lbs.

T-3

550 H. P. heavy duty

650 H. P. high speed

Weight 1160 lbs.



WRIGHT MODELS ENGINES T